

FILE 'HCAPLUS' ENTERED AT 15:09:41 ON 11 MAY 2009

L1 12250 S GANGLIOSIDE  
L2 11773 S GD3 OR GM2 OR GM3 OR GD1B  
L3 4676 S L1 AND L2  
L4 355798 S INFLAMM? OR ANTIINFLAMMATORY  
L5 130 S L3 AND L4  
L6 32002 S INFANT  
L7 3 S L5 AND L6  
L8 965 S GD3 AND GM3  
L9 906 S L1 AND L8  
L10 23 S L4 AND L9  
L11 8 S L10 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> log hold

FILE 'HCAPLUS' ENTERED AT 09:35:41 ON 12 MAY 2009

L1 12250 S GANGLIOSIDE  
L2 310456 S ORAL OR ORALLY  
L3 2638 S CHAGAS  
L4 0 S L1 AND L2 AND L3  
L5 192 S L1 AND L2  
L6 4 S TRYPANOSOMASIS  
L7 0 S L5 AND L6  
L8 1027504 S FOOD OR FORMULA OR INFANT  
L9 20 S L5 AND L8  
L10 12 S L9 AND (PY<2003 OR AY<2003 OR PRY<2003)

FILE 'HOME' ENTERED AT 15:09:08 ON 11 MAY 2009

=> file hcaplus  
COST IN U.S. DOLLARS

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 0.22       | 0.22    |

FULL ESTIMATED COST

FILE 'HCAPLUS' ENTERED AT 15:09:41 ON 11 MAY 2009  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 11 May 2009 VOL 150 ISS 20  
FILE LAST UPDATED: 8 May 2009 (20090508/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

HCAPlus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s ganglioside  
L1 12250 GANGLIOSIDE

=> s gd3 or gm2 or gm3 or gd1b  
7935 GD3  
2557 GM2  
2965 GM3  
1280 GD1B  
L2 11773 GD3 OR GM2 OR GM3 OR GD1B

=> s l1 and l2  
L3 4676 L1 AND L2

=> s inflamm? or antiinflammatory  
347013 INFLAMM?  
60312 ANTIINFLAMMATORY  
L4 355798 INFLAMM? OR ANTIINFLAMMATORY

=> s l3 and l4  
L5 130 L3 AND L4

=> s infant

L6 32002 INFANT

=> s 15 and 16

L7 3 L5 AND L6

=> d 17 1-3 ti abs bib

L7 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Formulations for mediating inflammatory bowel disorders

AB The invention provides formulations and methods for mediating inflammation, in particular an inflammatory bowel disorder such as necrotizing enterocolitis. Further, the formulations are effective in lowering blood cholesterol and decreasing blood cholesterol absorption. The formulations comprise at least one ganglioside, which may be selected from the group consisting of: GD3, GM1, GM2, GM3, and GD1b. The invention provides a method of treating or preventing inflammatory diseases, such as necrotizing enterocolitis by delivery of at least one ganglioside to a subject in need thereof. Supplementation of foods or liqs. with gangliosides, for example infant formula or infant foods, can be employed according to the invention.

AN 2007:815148 HCAPLUS <<LOGINID::20090511>>

DN 147:197354

TI Formulations for mediating inflammatory bowel disorders

IN Clandinin, Michael Thomas; Park, Eek J.

PA Mti Meta Tech Inc., Can.

SO U.S. Pat. Appl. Publ., 39pp., Cont.-in-part of U.S. Ser. No. 551,789

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | US 20070173480  | A1   | 20070726 | US 2007-622858  | 20070112 |
|      | WO 2004087173   | A2   | 20041014 | WO 2004-CA375   | 20040312 |
|      | WO 2004087173   | A3   | 20041125 |                 |          |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |          |
|      | RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
|      | US 20060276430  | A1   | 20061207 | US 2004-551789  | 20040312 |
| PRAI | US 2004-551789  | A2   | 20040312 |                 |          |
|      | WO 2004-CA375   | W    | 20040312 |                 |          |
|      | US 2003-404095  | A    | 20030402 |                 |          |

L7 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN

TI High-affinity oligosaccharide receptors for Helicobacter pylori and therapeutic and diagnostic uses thereof

AB The invention describes an oligosaccharide substance or receptor binding to Helicobacter pylori, and the use thereof in, e.g., pharmaceutical and nutritional compns. for the treatment of conditions due to the presence of Helicobacter pylori. The invention is also directed to the use of the receptor for diagnostics of Helicobacter pylori.

AN 2004:412821 HCAPLUS <<LOGINID::20090511>>

DN 140:417912  
 TI High-affinity oligosaccharide receptors for Helicobacter pylori and  
 therapeutic and diagnostic uses thereof  
 IN Teneberg, Susann; Miller-Podraza, Halina; Natunen, Jari; Karlsson,  
 Karl-Anders  
 PA Biotie Therapies Corp., Finland  
 SO PCT Int. Appl., 109 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 2004041291   | A1   | 20040521 | WO 2003-FI840   | 20031106 |
|      | WO 2004041291   | A9   | 20040722 |                 |          |
|      | W:  |      |          |                 |          |
|      | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, |      |          |                 |          |
|      | CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, |      |          |                 |          |
|      | GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, |      |          |                 |          |
|      | LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, |      |          |                 |          |
|      | OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, |      |          |                 |          |
|      | TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW          |      |          |                 |          |
|      | RW:   |      |          |                 |          |
|      | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, |      |          |                 |          |
|      | KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, |      |          |                 |          |
|      | FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, |      |          |                 |          |
|      | BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
|      | AU 2003276307   | A1   | 20040607 | AU 2003-276307  | 20031106 |
|      | EP 1562614  | A1   | 20050817 | EP 2003-810485  | 20031106 |
|      | R:  |      |          |                 |          |
|      | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, |      |          |                 |          |
|      | IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK      |      |          |                 |          |
|      | JP 2006511497   | T    | 20060406 | JP 2004-549233  | 20031106 |
|      | US 20060122148  | A1   | 20060608 | US 2005-533877  | 20051123 |
| PRAI | FI 2002-1989  | A    | 20021106 |                 |          |
|      | WO 2003-FI840   | W    | 20031106 |                 |          |

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Isolation and identification of buffalo milk gangliosides and their use  
 for humanization of infant and other formulas  
 AB The present invention relates to gangliosides derived or isolated from  
 buffalo milk, skimmed buffalo milk, buffalo milk serum or derivs. of  
 either. Buffalo milk is reported to comprise gangliosides that are not  
 contained in bovine milk, such as gangliosides that belong to the  
 GM1-class. Furthermore, buffalo milk is found to comprise unknown  
 gangliosides, denoted herein as ganglioside "F" and "L".  
 Furthermore, the invention reports that gangliosides are surprisingly  
 found in fractions of isolation procedures that were so far not considered  
 to comprise gangliosides. Finally, milk or milk serum from buffalo, for  
 example as derived from mozzarella cheese production, contains specific  
 gangliosides in the same amts. as human breast milk, which makes it  
 suitable for humanization of infant and other formulas. Anti-  
 inflammatory effects of buffalo milk gangliosides are also  
 disclosed.  
 AN 2003:509876 HCAPLUS <<LOGINID::20090511>>  
 DN 139:68312  
 TI Isolation and identification of buffalo milk gangliosides and their use  
 for humanization of infant and other formulas  
 IN Colarow, Ladislav; Turini, Marco; Berger, Alvin  
 PA Societe des Produits Nestle S.A., Switz.  
 SO Eur. Pat. Appl., 24 pp.  
 CODEN: EPXXDW

DT Patent  
LA English  
FAN.CNT 1

|        | PATENT NO.  | KIND  | DATE     | APPLICATION NO. | DATE     |
|--------|---|---|----------|-----------------|----------|
| PI     | EP 1323424  | A1  | 20030702 | EP 2001-130614  | 20011227 |
|        | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |   |          |                 |          |
|        | WO 2003055497   | A1  | 20030710 | WO 2002-EP14876 | 20021220 |
|        | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |   |          |                 |          |
|        | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |   |          |                 |          |
|        | AU 2002361244   | A1  | 20030715 | AU 2002-361244  | 20021220 |
|        | AU 2002361244   | B2  | 20080807 |                 |          |
|        | EP 1461048  | A1  | 20040929 | EP 2002-796763  | 20021220 |
|        | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK   |   |          |                 |          |
|        | NZ 534132   | A   | 20061222 | NZ 2002-534132  | 20021220 |
|        | US 20050107311  | A1  | 20050519 | US 2004-498946  | 20040615 |
| PRAI   | EP 2001-130614  | A   | 20011227 |                 |          |
|        | WO 2002-EP14876   | W   | 20021220 |                 |          |
| RE.CNT | 14  | THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD<br>ALL CITATIONS AVAILABLE IN THE RE FORMAT |          |                 |          |

=> d his

(FILE 'HOME' ENTERED AT 15:09:08 ON 11 MAY 2009)

FILE 'HCAPLUS' ENTERED AT 15:09:41 ON 11 MAY 2009

L1 12250 S GANGLIOSIDE  
L2 11773 S GD3 OR GM2 OR GM3 OR GD1B  
L3 4676 S L1 AND L2  
L4 355798 S INFLAMM? OR ANTIINFLAMMATORY  
L5 130 S L3 AND L4  
L6 32002 S INFANT  
L7 3 S L5 AND L6

=> s gd3 and gm3

7935 GD3

2965 GM3

L8 965 GD3 AND GM3

=> s l1 and l8

L9 906 L1 AND L8

=> s l4 and l9

L10 23 L4 AND L9

=> s l10 and (PY<2003 or AY<2003 or PRY<2003)

22984035 PY<2003

4506531 AY<2003

3975970 PRY<2003

L11 8 L10 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> d 111 1-8 ti abs bib

L11 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Isolation and identification of buffalo milk gangliosides and their use for humanization of infant and other formulas

AB The present invention relates to gangliosides derived or isolated from buffalo milk, skimmed buffalo milk, buffalo milk serum or derivs. of either. Buffalo milk is reported to comprise gangliosides that are not contained in bovine milk, such as gangliosides that belong to the GM1-class. Furthermore, buffalo milk is found to comprise unknown gangliosides, denoted herein as ganglioside "F" and "L". Furthermore, the invention reports that gangliosides are surprisingly found in fractions of isolation procedures that were so far not considered to comprise gangliosides. Finally, milk or milk serum from buffalo, for example as derived from mozzarella cheese production, contains specific gangliosides in the same amts. as human breast milk, which makes it suitable for humanization of infant and other formulas. Anti-inflammatory effects of buffalo milk gangliosides are also disclosed.

AN 2003:509876 HCAPLUS <<LOGINID::20090511>>

DN 139:68312

TI Isolation and identification of buffalo milk gangliosides and their use for humanization of infant and other formulas

IN Colarow, Ladislav; Turini, Marco; Berger, Alvin

PA Societe des Produits Nestle S.A., Switz.

SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---|------|----------|-----------------|--------------|
| PI   | EP 1323424  | A1   | 20030702 | EP 2001-130614  | 20011227 <-- |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |              |
| WO   | 2003055497  | A1   | 20030710 | WO 2002-EP14876 | 20021220 <-- |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |      |          |                 |              |
|      | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |              |
| AU   | 2002361244  | A1   | 20030715 | AU 2002-361244  | 20021220 <-- |
| AU   | 2002361244  | B2   | 20080807 |                 |              |
| EP   | 1461048   | A1   | 20040929 | EP 2002-796763  | 20021220 <-- |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK   |      |          |                 |              |
| NZ   | 534132  | A    | 20061222 | NZ 2002-534132  | 20021220 <-- |
| US   | 20050107311   | A1   | 20050519 | US 2004-498946  | 20040615 <-- |
| PRAI | EP 2001-130614  | A    | 20011227 | <--             |              |
|      | WO 2002-EP14876   | W    | 20021220 | <--             |              |

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Novel carbohydrate specificity of the 16-kDa galectin from Caenorhabditis

elegans: binding to blood group precursor oligosaccharides (type 1, type 2,  $T\alpha$ , and  $T\beta$ ) and gangliosides

AB Galectins, a family of soluble  $\beta$ -galactosyl-binding lectins, are believed to mediate cell-cell and cell-extracellular matrix interactions during development, inflammation, apoptosis, and tumor metastasis. However, neither the detailed mechanisms of their function(s) nor the identities of their natural ligands have been unequivocally elucidated. Of the several galectins present in the nematode *Caenorhabditis elegans*, the 16-kDa "proto" type and the 32-kDa "tandem-repeat" type are the best characterized so far, but their carbohydrate specificities have not been examined in detail. Here, we report the carbohydrate-binding specificity of the recombinant *C. elegans* 16-kDa galectin and the structural anal. of its binding site by homol. modeling. Our results indicate that unlike the galectins characterized so far, the *C. elegans* 16-kDa galectin interacts with most blood group precursor oligosaccharides (type 1,  $\text{Gal}\beta 1,3\text{GlcNAc}$ , and type 2,  $\text{Gal}\beta 1,4\text{GlcNAc}$ ;  $T\alpha$ ,  $\text{Gal}\beta 1,3\text{GalNAc}\alpha$ ;  $T\beta$ ,  $\text{Gal}\beta 1,3\text{GalNAc}\beta$ ) and gangliosides containing the  $T\beta$  structure. Homol. modeling of the *C. elegans* 16-kDa galectin CRD revealed that a shorter loop containing residues 66-69, which enables interactions of Glu67 with both axial and equatorial -OH at C-3 of GlcNAc (in  $\text{Gal}\beta 1,4\text{GlcNAc}$ ) or at C-4 of GalNAc (in  $\text{Gal}\beta 1,3\text{GalNAc}$ ), provides the structural basis for this novel carbohydrate specificity.

AN 2002:639467 HCAPLUS <<LOGINID::20090511>>  
 DN 138:85137  
 TI Novel carbohydrate specificity of the 16-kDa galectin from *Caenorhabditis elegans*: binding to blood group precursor oligosaccharides (type 1, type 2,  $T\alpha$ , and  $T\beta$ ) and gangliosides  
 AU Ahmed, Hafiz; Bianchet, Mario A.; Amzel, L. Mario; Hirabayashi, Jun; Kasai, Ken-Ichi; Giga-Hama, Yuko; Tohda, Hideki; Vasta, Gerardo R.  
 CS Center of Marine Biotechnology, University of Maryland Biotechnology Institute, Baltimore, MD, 21202, USA  
 SO Glycobiology (2002), 12(8), 451-461  
 CODEN: GLYCE3; ISSN: 0959-6658  
 PB Oxford University Press  
 DT Journal  
 LA English  
 RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Colostrum-based pharmaceutical compositions  
 AB A composition including colostrum or a colostrum-derived product and hyperimmune milk (HIM) or a hyperimmune milk-derived product, in amts. sufficient to provide a combined spectrum of pathogen-binding activity against a broad-spectrum of pathogenic organisms is described. For example, a test composition was prepared including 70% colostrum milk protein powder, 24% hyperimmune milk powder, 4% ganglioside-containing component, whey powder, lactose and 1.5% milk calcium. The test composition of the invention includes a combination of ingredients each of which has particular antimicrobial binding and/or anti-inflammatory activity which may combine to produce particular and unexpected clin. benefits in a broad range of diseases, including infection-associated diseases, and particularly gastrointestinal, inflammatory and bone related disorders. Such benefits are an unexpected result of the combination used.

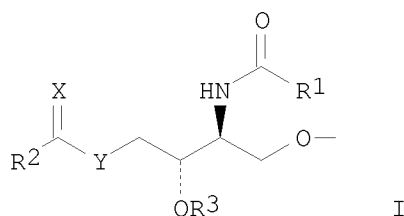
AN 2002:391563 HCAPLUS <<LOGINID::20090511>>  
 DN 136:391021  
 TI Colostrum-based pharmaceutical compositions  
 IN Williams, Charles Edward; Hobman, Peter Graeme; Yarrow, Simon Stephen  
 PA Fonterra Co-Operative Group Limited, N. Z.

SO PCT Int. Appl., 43 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---|------|----------|-----------------|--------------|
| PI   | WO 2002040051   | A1   | 20020523 | WO 2001-NZ256   | 20011115 <-- |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |      |          |                 |              |
|      | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |              |
|      | AU 2002024240   | A    | 20020527 | AU 2002-24240   | 20011115 <-- |
|      | EP 1341554  | A1   | 20030910 | EP 2001-996393  | 20011115 <-- |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |              |
|      | JP 2004517067   | T    | 20040610 | JP 2002-542423  | 20011115 <-- |
|      | HU 2004000589   | A2   | 20040628 | HU 2004-589     | 20011115 <-- |
|      | HU 2004000589   | A3   | 20050628 |                 |              |
|      | CN 1299771  | C    | 20070214 | CN 2001-822044  | 20011115 <-- |
|      | US 20040047856  | A1   | 20040311 | US 2003-416831  | 20031008 <-- |
|      | US 20050220894  | A1   | 20051006 | US 2005-136575  | 20050525 <-- |
| PRAI | NZ 2000-508234  | A    | 20001115 | <--             |              |
|      | WO 2001-NZ256   | W    | 20011115 | <--             |              |
|      | US 2003-416831  | A3   | 20031008 |                 |              |

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Novel synthetic gangliosides  
GI



AB Disclosed are novel synthetic ganglioside comprising a modified sphingosine group represented by Structural Formula (I); Y is -O- or -NH-; X is =O or -H<sub>2</sub>; R<sub>1</sub> and R<sub>2</sub> are independently a substituted or unsubstituted straight chain or branched hydrocarbonyl group, wherein the hydrocarbonyl group optionally comprises -S-, -S(O)-, -SO<sub>2</sub>-, -O- or -NR- (each R is independently -H, an aliphatic group, a substituted aliphatic group, an aryl group or a substituted aryl group); and R<sub>3</sub> is -H, -S(O)<sub>2</sub>H, -P(O)<sub>2</sub>OH, -N(O)OH or -P(O)<sub>2</sub>OP(O)<sub>2</sub>OH. Also disclosed are methods of treating a subject with a neurol. condition or disease and methods of treating a subject in need of immunosuppression. The subject can be, e.g., in need of neuroprotection, in need of neurogenesis, or in need of neuritogenesis.



The method can be used for immunosuppression, e.g., a subject with organ, bone marrow, or stem cell transplant or a subject with autoimmune disease. The methods comprises the step of administering to the subject an effective amount of the synthetic ganglioside represented by Structural Formula (I).

AN 2002:171915 HCAPLUS <<LOGINID::20090511>>

DN 136:210593

TI Novel synthetic gangliosides

IN Ho, Tony W.

PA Neuronyx, Inc., USA

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.      | KIND   | DATE     | APPLICATION NO. | DATE         |
|------|-----------------|--|----------|-----------------|--------------|
| PI   | WO 2002018401   | A2   | 20020307 | WO 2001-US27087 | 20010830 <-- |
|      | WO 2002018401   | A3   | 20020822 |                 |              |
|      | W:              | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW |          |                 |              |
|      | RW:             | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |              |
|      | AU 2001085359   | A  | 20020313 | AU 2001-85359   | 20010830 <-- |
| PRAI | US 2000-654363  | A1   | 20000901 | <--             |              |
|      | WO 2001-US27087 | W  | 20010830 | <--             |              |

OS MARPAT 136:210593

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Human sialyltransferase sequence homolog 27 and its cDNA and therapeutic use thereof

AB The invention provides cDNA sequences of a novel human sialyltransferase (alpha 2,8-sialyltransferase, or GD3 synthase) sequence homolog 27 (also referred HST27) cloned from human embryonic brain. The invention also relates to constructing the cloned gene expression vectors to prepare its recombinant protein using E. coli cells or eukaryotic cells. Methods of expressing and preparing the above recombinant protein and its antibody are described. Methods of using related gene or protein products for the treatment of various kinds of diseases, such as cancer, blood diseases, HIV infection, immune diseases and inflammation are also disclosed. Methods for screening for related analogs, agonists, inhibitors and antagonists to be used as therapeutic drugs are also described.

AN 2001:917884 HCAPLUS <<LOGINID::20090511>>

DN 136:32720

TI Human sialyltransferase sequence homolog 27 and its cDNA and therapeutic use thereof

IN Mao, Yumin; Xie, Yi; Qiu, Minyan; Wang, Yong; Jiang, Guangping

PA Shanghai Borong Gene Development Co., Ltd., Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 29 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE         |
|------|----------------|------|----------|-----------------|--------------|
|      | -----          | ---- | -----    | -----           | -----        |
| PI   | CN 1298005     | A    | 20010606 | CN 1999-124142  | 19991129 <-- |
| PRAI | CN 1999-124142 |      | 19991129 | <--             |              |

L11 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Alteration of human melanoma gangliosides by IFN- $\gamma$ , IL-2, and IL-4  
 AB In lesions of malignant melanoma, melanoma cells are exposed to various cytokines produced by inflammatory reactions. As a result, transformation of melanoma cells is expected to occur. We studied alterations in human melanoma cell line ganglioside composition after exposing melanoma cell lines to interferon (IFN)- $\gamma$ , interleukin (IL)-2, and IL-4 by biochem. methods. IFN- $\gamma$  increases the ratio of a-series gangliosides and the ratio of GM3/GD3. This suggests an alteration of immunoreactivity, a decrease in ganglioside sialyltransferase II activity, and an decrease in the malignant character of these cells. The alteration of the ganglioside profile varied among cytokines and cell lines. The progression of malignant melanoma may be influenced by reciprocal interactions between the melanoma cells and the host immune system.

AN 1996:388821 HCAPLUS <<LOGINID::20090511>>

DN 125:55925

OREF 125:10761a,10764a

TI Alteration of human melanoma gangliosides by IFN- $\gamma$ , IL-2, and IL-4

AU Ando, Iwao; Komine, Mayumi; Otsuka, Fujio; Kukita, Atsushi

CS Mizonokuchi Hospital, Teikyo University, Kawasaki, 213, Japan

SO Journal of Dermatology (1996), 23(4), 225-229

CODEN: JDMYAG; ISSN: 0385-2407

PB Japanese Dermatological Association

DT Journal

LA English

L11 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Gangliosides can activate human alternative complement pathway

AB The alternative complement pathway (ACP) in vertebrates is known to be important in inflammatory reactions, and to be activated by foreign substances such as bacterial lipopolysaccharide (LPS) and zymosan, although to date no intrinsic activators have been identified except complement receptor type 2. From the point of the structural similarity of LPS to ganglioside, the authors have investigated gangliosides which are abundantly present in animal cells for their activity on the human ACP. All of 7 gangliosides tested were found to activate this pathway in a manner depending on the number of sialic acids and neutral sugars contained in the mols. A dose-response study suggested a correlation of the threshold in ganglioside concentration with its critical micelle concentration Gangliosides may thus serve as an intrinsic activator for ACP in animals, thereby leading to inflammation. The possibility of the participation of sialidase in complement activation is also discussed.

AN 1994:29039 HCAPLUS <<LOGINID::20090511>>

DN 120:29039

OREF 120:5461a,5464a

TI Gangliosides can activate human alternative complement pathway

AU Oshima, Haruyuki; Soma, GenIchi; Mizuno, Denichi

CS Biotechnol. Res. Cent., Teikyo Univ., Kawasaki, 216, Japan

SO International Immunology (1993), 5, 1349-51

CODEN: INIMEN; ISSN: 0953-8178

DT Journal

LA English

L11 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Angiogenesis can be stimulated or repressed in vivo by a change in GM3:GD3 ganglioside ratio

AB The authors have previously observed that rabbit cornea stimulated by an angiogenic factor became richer in total gangliosides and reduced the GM3:GD3 ganglioside ratio. Moreover, exptl. induced global enrichment of corneal gangliosides favors angiogenesis. The objective of this work was to explain the possible relation between angiogenic response and changes in the GM3:GD3 ratios observed in vivo. Cornea was utilized because it is avascular and transparent; i.e., the onset of opacity permitted exclusion of angiogenesis produced by a generic inflammatory response. PGE1 or basic fibroblast growth factor were applied as angiogenesis triggers. Angiogenesis in vivo and mobilization and growth of microvascular endothelium in vitro were taken as parameters to indicate whether differences in GM3:GD3 ratios could modify the extent of the angiogenic response. In vivo angiogenesis, whether PGE1 or basic fibroblast growth factor induced, was repressed by GM3 and enhanced by GD3 or GM1 enrichment of the cornea. In vitro growth and motility of microvascular endothelium were reduced by GM3 addition to the medium and returned to normal levels by addition of GD3. Formation of new vessels induced by 2 different angiogenic factors could be stimulated or repressed in the cornea by reduction or enhancement of the GM3:GD3 ratio of tissue gangliosides. Changes in the relative proportion of mols. normally present in adult tissues, like PGE1, basic fibroblast growth factor, GM3, GD3, were sufficient to modulate or even block angiogenesis.

AN 1993:231007 HCAPLUS <<LOGINID::20090511>>

DN 118:231007

OREF 118:39911a,39914a

TI Angiogenesis can be stimulated or repressed in vivo by a change in GM3:GD3 ganglioside ratio

AU Ziche, Marina; Morbidelli, Lucia; Alessandri, Giulio; Gullino, Pietro M.

CS Dep. Preclin. Clin. Pharmacol., Univ. Florence, Florence, Italy

SO Laboratory Investigation (1992), 67(6), 711-15

CODEN: LAINAW; ISSN: 0023-6837

DT Journal

LA English

=> s ganglioside

L1 12250 GANGLIOSIDE

=> s oral or orally

244398 ORAL

93864 ORALLY

L2 310456 ORAL OR ORALLY

=> s chagas

L3 2638 CHAGAS

=> s l1 and l2 and l3

L4 0 L1 AND L2 AND L3

=> s l1 and l2

L5 192 L1 AND L2

=> s trypanosomiasis

L6 4 TRYPANOSOMASIS

=> s l5 and l6

```
L7          0 L5 AND L6

=> s food or formula or infant
    461715 FOOD
    545464 FORMULA
    32003 INFANT
L8      1027504 FOOD OR FORMULA OR INFANT

=> s 15 and 18
L9      20 L5 AND L8

=> s 19 and (PY<2003 or AY<2003 or PRY<2003)
    22984036 PY<2003
    4506532 AY<2003
    3975971 PRY<2003
L10      12 L9 AND (PY<2003 OR AY<2003 OR PRY<2003)
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